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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/689,686

10/22/2003

Frank Yang

MR2349-964

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4586 7590 03/22/2007

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3458 ELLICOTT CENTER DRIVE-SUITE 101
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EXAMINER

ROY, SIKHA

ART UNIT

PAPER NUMBER

2879

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/22/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/689,686

Applicant(s)

YANG ET AL.

Examiner

Sikha Roy

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5 and 9-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,9-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The Amendment, filed on December 22, 2006 has been entered and acknowledged by the Examiner.

Cancellation of claim 8 has been entered. New claims 10-12 have been entered.

In light of the amendment the objection to specification and claim 1 has been withdrawn.

Claims 1,3-5, 9-12 are pending in the instant application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,3 -5 and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2003123673 to Enomoto et al. and further in view of Applicant's Admitted Prior art (AAPA).

Regarding claim 1 Enomoto discloses (Figs. 1-3 English translation para [0014]-[0018], [0035]) a field emission display comprising a cathode plate 12 having plurality of cathode conductors disposed thereon, an anode plate 11 having plurality of anode conductors disposed thereon in spaced overlying relationship with respect to the cathode plate, a frame (high melting conductivity member) 18 disposed between the cathode and anode plates and having an enclosed space formed, the frame having a

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closed contour(Figs. 4,7) to define a closed space, main body having a cathode plate sealing surface and an opposing anode plate sealing surface, a first adhesive 30 disposed on the cathode plate sealing surface and the anode plate sealing surface and a plurality of fixing side strips (lobes) 18a, 18b, 18c, and 18d extending outwardly from the outer side of the main body, each of the fixing side strips having a cathode plate facing surface and an anode plate facing surface and having the adhesive 30 on it.

Enomoto is silent about the second adhesive disposed on the cathode plate facing surface and anode plate facing surface of the fixing strips for bonding.

AAPA in the prior art section discloses (Figs. 2,3) use of UV glue for temporary fixing of the cathode and anode plates and glass glue (in the groove 212 Fig.2) for attaching the cathode and anode plates. AAPA further discloses this method improves the occurrence of distortion during fixing.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to use second adhesive (UV glue) on the protruding fixing strips 18a- 18d of Enomoto as suggested by AAPA for reducing occurrence of distortion during fixing method.

Regarding claim 3 Enomoto discloses the main body of the frame has rectangular contour.

Regarding claim 4 Enomoto discloses the cathode plate and anode plate sealing surfaces are mutually parallel.

Regarding claim 5 AAPA discloses use of glass glue and hence it would have been obvious to modify the adhesive (sealing material) 30 of Enomoto for providing

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sealing of the main frame with the cathode and anode plates. Furthermore the Examiner notes that it is well known in the art to use glass glue for sealing cathode and anode plates for providing hermetic sealing.

Regarding claim 9 Enomoto in Fig. 7 discloses the fixing side strips extend parallel to cathode and anode conductors.

Regarding claim 10 Enomoto discloses a frame for spacing cathode and anode plates for a field emission display comprising a frame (high melting conductivity member) 18 disposed between the cathode and anode plates and having an enclosed space formed, the frame having a closed contour(Figs. 4,7) to define a closed space, main body having a cathode plate sealing surface and an opposing anode plate sealing surface, a first adhesive 30 disposed on the cathode plate sealing surface and the anode plate sealing surface and a plurality of fixing side strips (lobes) 18a, 18b, 18c, and 18d extending outwardly from the outer side of the main body, each of the fixing side strips having a cathode plate facing surface and an anode plate facing surface and having the adhesive 30 on it.

Enomoto does not exemplify first adhesive as glass disposed on the cathode plate and anode plate sealing surfaces and a light activated adhesive disposed on the fixing side strips.

AAPA in the prior art section discloses (Figs. 2,3) use of UV glue for temporary fixing of the cathode and anode plates and glass glue (in the groove 212 Fig.2) for

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attaching the cathode and anode plates. AAPA further discloses this method improves the occurrence of distortion during fixing method.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to use glass glue for the first adhesive on the cathode and anode sealing surfaces of the main body and second adhesive (UV glue) on the protruding fixing strips 18a- 18d of Enomoto as suggested by AAPA for reducing occurrence of distortion during fixing method.

Regarding claim 11 Enomoto discloses the main body of the frame has rectangular contour.

Regarding claim 12 Enomoto discloses the cathode plate and anode plate sealing surfaces are mutually parallel.

Response to Arguments

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 6,036,567 to Watkins discloses use of first and second adhesives for sealing cathode and anode plates of a field emission display.

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Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (571) 272-2463. The examiner can normally be reached on Monday-Friday 8:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sikha Roy

Sikha Roy
Patent Examiner
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